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From: BRANNAN Kevin
Sent: Wed 4/3/2013 9:57:10 PM
Subject: Mid-Coast Work - Assess stream access and structure locations using LIDAR and NHD

Hi All,

Here is a short write-up of the work I proposed during our call earlier today:

The goal of this work would be to assess the potential direct loading of bacteria to streams in the Big Elk Creek watershed using local LIDAR data and put these locations in NHD format using the Hydrography Event Management (HEM) tool. The HEM tool is used to add or edit events in the NHD. The two potential sources to be considered are riparian areas with stream access for animals and structures located near streams. The assessment will generate polygon and line vector data will be generated from the assessment. The HEM tool will be used to put the information created from the LIDAR data into the format that is used in the NHD. This will allow for the linking of the local data to all of the other data in the NHD. Furthermore, the HEM tool facilitates updates of local information to any modifications that occur for the NHD. ODEQ has the LIDAR data for Big Elk Creek, so the main effort will be the data processing for the assessment. The procedure used would include creating buffers around the NHD flowlines. The buffers will be used to extract the LIDAR data. Next, procedures already available from ODEQ to identify vegetation height from the LIDAR will be used to identify riparian areas with animal traffic and to identify structures. Then the areas and structures identified from the LIDAR data will be converted to vector data (polygons and lines). Finally, the HEM tool will be used to create events on the NHD for the vector data. The main products from this work would be the vector data on the NHD (the hydrographic events), the interim LIDAR and vector data, and a documented procedure (as code if possible) used to create the data.

Feel free to contact me if you have any questions. This work can potentially used throughout the Mid-Coast and would greatly aid the implementation of the Bacteria TMDL.

Cheers,

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